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     (FILE 'HOME' ENTERED AT 12:39:26 ON 23 MAR 2009)

     FILE 'CAPLUS' ENTERED AT 12:39:37 ON 23 MAR 2009
L1         14734 S (PHARMACEUTICAL OR PHARMACEUTICALS)(L)(PULVERIZE OR PULVERIZA
L2            49 S L1 AND (JET MILL)

=> d que l2 stat
L1         14734 SEA FILE=CAPLUS ABB=ON  PLU=ON  (PHARMACEUTICAL OR PHARMACEUTIC
                 ALS)(L)(PULVERIZE OR PULVERIZATION OR MILLING OR (JET MILL) OR
                 POWDER)
L2            49 SEA FILE=CAPLUS ABB=ON  PLU=ON  L1 AND (JET MILL)


=> d 1-49 bib abs
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L2 ANSWER 1 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2009:247686 CAPLUS
TI Influence of flaws and crystal properties on particle fracture in a jet mill
AU de Vegt, Onno; Vromans, Herman; den Toonder, Jaap; van der Voort Maarschalk, Kees
CS Department of Pharmaceutics, NV Organon, part of Schering-Plough Corporation, Oss, 5340 BH, Neth.
SO Powder Technology (2009), 191(1-2), 72-77
CODEN: POTEBX; ISSN: 0032-5910
PB Elsevier B.V.
DT Journal
LA English
AB Jet milling is commonly used for reducing the particle size of active pharmaceutical ingredients. Unfortunately, this process is sometimes difficult to control as pre-existing flaws and mech. properties affect the particle fracture behavior in a mill. In this study the effect of pre-existing flaws on mech. material properties of crystals of a model material, sodium chloride, from different sources have been investigated using optical microscopy, nanoindentation, and powder compaction. Subsequently, these properties have been correlated with particle fracture in a jet mill. The paper shows that particles that have a small average flaw size possess the lowest constraint factor (i.e. the constraint factor is defined as the ratio of the hardness and the yield pressure and is an expression of the ductility of the material) whereas particles that have a large average flaw size have a high constraint factor and hence behave more ductile. Moreover, the study shows that the rank orders of the mech. properties are consistent with the rank order of the exptl. determined particle rate of breakage. Materials that have a relatively low hardness show the highest particle rate of breakage. The degree of particle fracture during jet-milling tends to decrease for particles that have a smaller flaw d. and behave more ductile. The paper shows that pre-existing flaws have an impact on mech. properties and on particle fracture behavior in a jet mill. It is concluded that the increase of the particle rate of breakage as a function of particle size is influenced by the number of flaws rather than by flaw length.

L2 ANSWER 2 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2009:140062 CAPLUS
DN 150:212774
TI Micronization of polyols
IN Gonze, Michel Henri Andre; Stouffs, Robert Henri Marcel
PA Cargill, Incorporated, USA
SO PCT Int. Appl., 19pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2009016133	A1	20090205	WO 2008-EP59834	20080725
	W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
PRAI	EP 2007-113374	A	20070727		

AB Micronized polyols have a particle size distribution (d50) of 20-60 μm, and a flowability ≤5 s/100g (preferably <5 s/100g). The micronized polyols, although they have a smaller particle size distribution compared to the corresponding milled polyols, have improved flowability. Preferably, the polyol is one or more of maltitol, isomalt, mannitol, sorbitol, xylitol, and erythritol. Preferred polyols also demonstrate a compressibility index ≥40%. The process for micronizing a polyol comprises the steps of (a) taking a polyol ($C_nH_{2n+2}O_n$) which is solid at 20-25° ; (b) feeding the polyol into a jet mill and applying pressure using nitrogen; and (c) collecting the micronized polyol. The micronized polyols are useful in food, feed, cosmetic and pharmaceutical compns., especially chewing gum.
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 3 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2008:1417278 CAPLUS
DN 150:24117
TI Integrated method for producing Chinese medicine Maifanshi superfine powder and concentrated extractive solution thereof
IN Ke, Liangjie
PA Naimanqi China Medical Stone Development Co., Ltd., Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 13pp.
CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 101305829	A	20081119	CN 2008-10067186	20080520
PRAI	CN 2008-10067186		20080520		

AB The title integrated method for producing maifanshi superfine powder and concentrated extractive solution thereof comprises of (1) pulverizing maifanshi into 125-425 mm powder, pulverizing into 48-52 mm powder by using a jaw type breaker, pulverizing into 3-5 mm powder by using an impact breaker, separating with a large vibrating screen, pulverizing into 42-48 μm powder by using a hammer breaker, separating with a small vibrating screen, and pulverizing into 2-5 μm powder by using a jet mill to obtain superfine powder, and (2) soaking the maifanshi superfine powder in water circulation system, and sequentially concentrating by nano-filtration (NF), reverse osmosis (RO) and low-temperature vacuum distillation (LTVD). The inventive method has the advantages of no influence on components, high content of minerals, high utilization rate of raw materials, short soaking period, improved dissoln. rate of minerals, improved concentration degree, and improved recovery utilization rate.

L2 ANSWER 4 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2008:673160 CAPLUS
DN 149:17741
TI Oral pharmaceutical composition containing naphthoquinone-based compound for intestine delivery system with improved bioavailability and pharmacokinetics
IN Jo, In Geun; Yoo, Sang-Ku; Park, Myung-Gyu; Kwak, Taehwan
PA MD Bioalpha Co., Ltd., S. Korea; KT & G Co., Ltd.
SO PCT Int. Appl., 62pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2008066295	A1	20080605	WO 2007-KR6008	20071126
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	KR 20080047968	A	20080530	KR 2007-102470	20071011
PRAI	KR 2006-117685	A	20061127		
	KR 2007-102470	A	20071011		

OS MARPAT 149:17741
AB Provided is an oral pharmaceutical composition with improved bioavailability and pharmacokinetic properties of a drug, by increasing a bioabsorption rate and an in vivo retention time of an active ingredient via intestine-targeted formulation of a particular naphthoquinone-based compound, or a pharmaceutically acceptable salt, prodrug, solvate or isomer thereof, as an active ingredient. Thus, micronizing of an active ingredient was carried out using a jet mill at a supply pressure of 0.65 Mpa, and a feed rate of 50 to 100 g/h. 0.2 G of sodium lauryl sulfate and 10 g of a naphthoquinone-based compound were mixed and ground; micronized particles were recovered and a particle size was determined by zeta potential measurement: an average particle diameter was 1500 nm.
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 5 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2008:673159 CAPLUS
DN 149:17740
TI Pharmaceutical compositions containing phenanthraquinones for intestinal delivery system
IN Jo, In Geun; Yoo, Sang-Ku; Park, Myung-Gyu; Kwak, Taehwan
PA MD Bioalpha Co., Ltd., S. Korea; KT & G Co., Ltd.
SO PCT Int. Appl., 55pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2008066296	A1	20080605	WO 2007-KR6010	20071126
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	KR 2008047969	A	20080530	KR 2007-102478	20071011
PRAI	KR 2006-117685	A	20061127		
	KR 2007-102478	A	20071011		

OS MARPAT 149:17740
AB Provided is an oral pharmaceutical composition with improved bioavailability and pharmacokinetic properties of a drug, by increasing a bioabsorption rate and an in vivo retention time of an active ingredient via intestine-targeted formulation of a particular phenanthraquinone, or a salt, prodrug, solvate or isomer thereof, as an active ingredient. Micronizing of an active ingredient was carried out by using a Jet mill. Sodium lauryl sulfate and cryptotanshinone were added to water and then ground for 10 h. Micronized particles were recovered and a particle size was determined by zeta potential measurement.
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 6 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2008:641338 CAPLUS
DN 149:17255
TI Micro/nanoparticle design and fabrication for pharmaceutical drug preparation and delivery applications
AU Sahoo, Nanda Gopal; Abbas, Ali; Li, Chang Ming
CS School of Chemical and Biomedical Engineering, Nanyang Technological University, Singapore, Singapore
SO Current Drug Therapy (2008), 3(2), 78-97
CODEN: CDTUBV; ISSN: 1574-8855
PB Bentham Science Publishers Ltd.
DT Journal; General Review
LA English
AB A review. In modern medicine technologies the oral administration of solid forms is the preferred route for drug delivery. Thus, in pharmaceutical applications, size, shape and morphol. of the solid particles are important because they can affect the solubility as well as bioavailability of the drug particles. Since the bioavailability of orally applied drugs depends on the rates of dissoln. and absorption, methods to increase such rates are often essential to reach significant levels (concns.) in the blood. A very suitable way to increase the rate of dissoln. is the reduction of the particle size. Particle design, in particular the design of micron, submicron, or nanoparticles, is thus critical There are several methods for the production of drug particles of decreased sizes such as pulverization of large particles using a ball or jet mill, solidification of emulsions by in-water drying methods, spray freezing, spray drying and supercrit. antisolvent technique (SAS), etc. These methods are reviewed here with a focus on the production of micro/nano-sized drug particles with or without water soluble materials. Such particles are used in oral, pulmonary and transdermal drug delivery of water insol. or poorly water soluble drugs. Especially, our review concs. on spray drying methods for the synthesis of drug particles with or without water soluble materials that show a faster rate and higher extent of dissoln. and enhanced bioavailability in comparison with com. prepns. containing the normal form of the drug. This review provides an update and insights on recent and relevant studies in this area, highlights our work in this field and attempts to provide a future outlook on this research.
RE.CNT 217 THERE ARE 217 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 7 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2008:608004 CAPLUS
DN 148:546143
TI Formulations of tetrahydropyridine antiplatelet agents for parenteral or oral administration
IN Bernstein, Howard; Carneiro, Olinda; Jain, Rajeev A.; Pandit, Namrata; Rane, Shveta; Straub, Julie Ann
PA Acusphere, Inc., USA
SO PCT Int. Appl., 28pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2008060934	A2	20080522	WO 2007-US84040	20071108
	WO 2008060934	A3	20080912		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
PRAI	US 2006-866681P	P	20061114		

OS MARPAT 148:546143
AB A pharmaceutical composition for oral or parenteral administration of a compound comprises an oil-in-water emulsion, wherein the oil phase comprises the free base or a salt thereof of a tetrahydropyridine, e.g., ticlopidine, and a surfactant which are soluble in the oil phase and/or the aqueous phase. The emulsion optionally contains excipients that are soluble in the oil phase and/or the aqueous phase, such as pH modifying agents such as buffers, osmolality/tonicity modifying agents, emulsifying agents, water-soluble polymers, and preservatives. The tetrahydropyridine can be formulated as a solid material and stored until needed. Kits for forming the emulsion are provided. Prior to administration, the solid material can be reconstituted in an aqueous medium to form the emulsion. A clopidogrel bisulfate powder was fed manually into the Fluid Energy jet mill, with an injector pressure of 8 bars and a grinding pressure of 4 bars. The jet mill was allowed to clear out for 1 min with an injector pressure of 10 bars and a grinding pressure of 9 bars resulting in jet milled clopidogrel bisulfate.

L2 ANSWER 8 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2008:578742 CAPLUS
DN 148:592726
TI Characterization of the grinding behaviour in a single particle impact device: Studies on pharmaceutical powders
AU Meier, Matthias; John, Edgar; Wieckhusen, Dierk; Wirth, Wolfgang; Peukert, Wolfgang
CS Institute of Particle Technology, Friedrich-Alexander-University Erlangen-Nuremberg, Erlangen, D-91058, Germany
SO European Journal of Pharmaceutical Sciences (2008), 34(1), 45-55
CODEN: EPSCED; ISSN: 0928-0987
PB Elsevier B.V.
DT Journal
LA English
AB The grinding behavior of different materials can be described by the two material parameters fMat and Wm,min. FMat describes the resistance of particulate material against fracture in impact comminution, Wm,min characterizes the specific energy which a particle can take up without comminution. The material parameters are determined exptl. by single particle impact tests. This concept is also applicable to pharmaceutical powders, as will be shown in this work. A device is presented for the characterization of particles with sizes down to a few 10 μm. Particles are dispersed and accelerated in an air stream which is flowing against an impact plate. The impact velocity is controlled by the air flow. An LDA system enables the measurement of particle velocities. The results obtained with this jet mill are in accordance to those obtained from another single particle impact device used by Vogel and Peukert, in which the influence of fluid flow is completely avoided. Since the new device is especially designed for finer powders, it will allow a more detailed anal. of the material parameters at smaller particle sizes. Addnl., a new anal. method has been developed in order to determine the breakage probability not from sieve anal. but from laser light diffraction (LLD) data by using a population balance.
RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 9 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2008:273817 CAPLUS
DN 149:454728
TI Grinding and its classification system for pharmaceutical production
AU Asahi, Syozo
CS R&D Dep., Tokuju Corp., Japan
SO Iyakuhin Seizaika Horyaku to Shingijutsu (2007), 275-282. Editor(s): Takeuchi, Hirofumi. Publisher: Shi Emu Shi Shuppan, Tokyo, Japan. CODEN: 69KLLT; ISBN: 978-4-88231-674-9
DT Conference; General Review
LA Japanese
AB A review discussing characteristics of grinding systems, e.g. jet mill and freezing-grinding system, and classification systems, e.g. sieving system, for pharmaceutical production is provided.

L2 ANSWER 10 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2008:63710 CAPLUS
DN 148:128311
TI Binderless granulation of drug-loaded nanoparticles, the granulated nanoparticles, and dry powder inhalers containing the granules
IN Tsujimoto, Hiroyuki; Hara, Kaori; Hatano, Shigenobu
PA Hosokawa Powder Engineering Research Institute, Japan
SO Jpn. Kokai Tokkyo Koho, 19pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2008007426	A	20080117	JP 2006-177124	20060627
PRAI JP 2006-177124		20060627		

AB Title granules, formed by only adhesive force of nanoparticle aggregates bound via excipients, are manufactured by (1) preparing aggregates of drug-loaded nanoparticles bound via excipients and (2) granulating the aggregates while circulating the nanoparticle aggregate powder in a spouted bed under consolidation state. The dry powder inhalers contain the granules. Thus, PLGA 7520 [poly(lactic acid-glycolic acid)] was dissolved in acetone, mixed with BtOH solution of VC-IP (I; ascorbyl tetrahexyldecanoate), and the mixture was added dropwise to aqueous solution of PVA 403 (polyvinyl alc.) at 40° to give I-loaded nanoparticle suspension. The suspension was subjected to a reduced pressure at 40° for 3 h under stirring to remove acetone and BtOH, filtered, and freeze-dried to give I-loaded nanosphere powder. The nanosphere powder was mixed with solution of Lactohale (lactose), freeze-dried, pulverized with a jet mill, and the size-reduced aggregates (average particle size 10.5 μm) were granulated to give granules containing 5.5 + 10-2 weight%. Pulmonary delivery of I was evaluated using a cascade impactor.

L2 ANSWER 11 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2007:673442 CAPLUS
DN 147:79616
TI Processes for making particle-based pharmaceutical formulations for parenteral administration
IN Altreuter, David; Bernstein, Howard; Brito, Luis; Brito, Shaina; Carneiro, Olinda C.; Chickering, Donald E.; Huang, Eric K.; Jain, Rajeev; Narasimhan, Sridhar; Pandit, Namrata; Straub, Julie A.
PA Acusphere, Inc., USA
SO PCT Int. Appl., 41pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2007070852	A2	20070621	WO 2006-US62094	20061214
WO 2007070852	A3	20071101		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA			
CA 2631494	A1	20070621	CA 2006-2631494	20061214
US 20070178165	A1	20070802	US 2006-610791	20061214
EP 1973527	A2	20081001	EP 2006-840263	20061214
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
IN 2008KN02258	A	20090116	IN 2008-KN2258	20080604
PRAI US 2005-750461P	P	20051215		
WO 2006-US62094	W	20061214		

AB A method is provided for making a parenteral dosage form of a pharmaceutical agent which includes (a) providing particles of a pharmaceutical agent; (b) blending the particles with particles of at least one bulking agent to form a first powder blend, which does not include a surfactant; (c) milling the first powder blend to form a milled blend which comprises microparticles or nanoparticles of the pharmaceutical agent; and (d) reconstituting the milled blend with a liquid vehicle, which includes at least one surfactant, for parenteral administration. A method is also provided which includes (a) providing particles of a pharmaceutical agent; (b) blending these particles with particles of an excipient to form a first blend; and (c) milling the first blend to form a milled blend that includes microparticles or nanoparticles, which exhibits a greater dispersibility, wettability, and suspendability as compared to the particles of step (a) or the first blend. Thus, two blends were made containing celecoxib/mannitol/Tween 80/Plasdone-C15 in a 10:10:1:1 ratio either by jet milling a blend directly or by jet milling a blend of celecoxib and preprocessed mannitol/Tween 80/Plasdone-C15. The mannitol and the Tween 80 were preprocessed, at a ratio of 10:1, by dissoln. in water (85.2 g mannitol and 8.54 g Tween 80 in 749 g water) followed by freezing and lyophilization. Each sample was blended using a mixer to produce a dry blended powder. The dry blended powder was then fed manually into a jet mill. The material made with preprocessed excipient was easier to mill than the material made with the non-preprocessed excipient. The resulting milled blends were reconstituted with water and examined by microscopy. There were

L2 ANSWER 11 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)
agglomerates obsd. in the formulation contg. non-lyophilized mannitol/Tween 80. However, large agglomerates were not visible for the material that contained lyophilized mannitol/Tween 80/PVP, indicating that preprocessing of the Tween 80 excipient resulted in improved dispersal.

L2 ANSWER 12 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2007:646482 CAPLUS
DN 147:284831
TI Use of spouted bed type binderless granulation to design PLGA nano-composite granules for dry powder inhalation (DPI)
AU Tsujimoto, Hiroyuki; Hara, Kaori; Tsukada, Yusuke; Kawashima, Yoshiaki; Hatano, Shigenobu
CS Hosokawa Powder Technology Research Institute, Hirakata, 573-1132, Japan
SO Funtai Kogaku Kaishi (2007), 44(6), 459-464
CODEN: FKKADA; ISSN: 0386-6157
PB Funtai Kogakkai
DT Journal
LA Japanese
AB New granulation technique using a spouted bed type binderless granulator and a jet mill to make PLGA nano-composite granules applicable to DPI was studied. In the method, the PLGA nano-composite granules having a spherical shape with soft granule strength can be binderlessly granulated in the spouted bed using raw materials prepared by milling and blending freeze dried PLGA nanospheres and lactose powder as an excipient with a jet mill. The prepared nano-composite granules showed good handling properties with high respirable fraction (RF) values estimated by cascade impactor in vitro. The new method proposed in the present work proved to be a useful preparation technique of PLGA nano-composite granules for DPI application.

L2 ANSWER 13 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2007:536945 CAPLUS
DN 146:507832
TI Multi-stage process to control particle size of pharmaceutical substance
IN Mooney, Brett Antony
PA Alphapharm Pty. Ltd., Australia; Keramidas, Panagiotis
SO PCT Int. Appl., 27pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2007053904	A1	20070518	WO 2006-AU1687	20061110
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	AU 2006313009	A1	20070518	AU 2006-313009	20061110
	CA 2628716	A1	20070518	CA 2006-2628716	20061110
	EP 1951197	A1	20080806	EP 2006-804507	20061110
	R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS				
PRAI	AU 2005-906227	A	20051110		
	WO 2006-AU1687	W	20061110		

AB This invention relates to multi-stage process to control the particle size of a pharmaceutical substance comprising the steps of: passing the pharmaceutical substance through a first stage of a particle size reduction process with a first set of particle size control parameters to obtain a feedstock of reduced median particle size and lesser distribution of median particle size for a second stage of a particle size reduction process; passing the feedstock, through a second stage of a particle size reduction process with a second set of particle size control parameters; optionally, using the product of the second stage or subsequent stages as a feedstock in further stages of a multi-stage particle size reduction process with a set of particle size control parameters for each stage; and collecting a pharmaceutical substance with a median particle size greater than 10μm and with a narrow, reproducible distribution of median particle sizes. Thus, oxcarbazepine was milled in a 12″ spiral jet mill to produce particle size of 15μm to 17μm.
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 14 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2007:418839 CAPLUS
DN 147:528270
TI A process of administering aerosols of macrolide antibiotics to the respiratory tract
IN Bhattacharya, Sampad; Gumudavelli, Shridhar; Joshi, Mayank
PA Alembic Limited, India
SO Indian Pat. Appl., 17pp.
CODEN: INXXBQ
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	IN 2002MU00840	A	20040703	IN 2002-MU840	20020925
PRAI	IN 2002-MU840		20020925		

AB A process for preparation of Dry Powder Inhalation of Macrolides comprising of the following steps. A. Mill roxithromycin (Macrolide antibiotic) using a jet mill to obtain a mean particle size below 2 μ and 90% particles below 10 μ. B. Dissolve sodium saccharin (Sweeteners) into a buffered solution of citric acid-sodium citrate. C. Sep. dissolve Poloxamer 188 (Wetting agent) in water. D. Wet the milled Roxithromycin obtained in step (a) with the solution of step (c) and mix thoroughly. E. Suspend the wet mass of step (d) into the solution of step (b) and homogenize. F. Disperse/dissolve Hydroxypropyl Methylcellulose (coating polymer) into the formed solution of step (e). G. Spray-dry the formed suspension of step (f). H. Blend the collected material of step (g) with lactose (Carrier) in a V-blender.

L2 ANSWER 15 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2007:402270 CAPLUS
DN 146:387141
TI Method for manufacturing fine powders for coating of solid compositions
IN Fujimoto, Shinji
PA Kurimoto, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2007091688	A	20070412	JP 2005-286543	20050930
PRAI	JP 2005-286543		20050930		

AB It is intended to provide a method for mass production of fine powders enable to make compact coatings on the surface of solid compns. by dry coating process. Disclosed is a method for manufacturing fine powders for use in coating of solid compns., wherein the method includes spray drying a dispersion containing polymer fine powder with an average particle size ≤ 1 μm, and cracking and classifying the dried powders by using a jet-mill with an air-flow classifier.

L2 ANSWER 16 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2007:208661 CAPLUS
DN 146:236205
TI New powder inhalant formulations of interferons
IN Jiang, Ronggao; Liu, Heng; Wang, Chunlong; Yang, Ying
PA Tianjin Institute of Pharmaceutical Research, Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 20pp.
CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI CN 1672731	A	20050928	CN 2004-10018796	20040326
PRAI CN 2004-10018796		20040326		

AB The invention provides new powder inhalant formulations of interferons. The interferon powder inhalation is composed of 0.0002-0.8 wt% of interferon, 70-97.9 wt% of diluting agent, 0.01-5 wt% of protective agent for protecting the activity of interferon, 0-25 wt% of adjuvant for improving dispersibility, and a salt buffer system for keeping pH at 4-9, wherein the interferon is selected from recombinant human interferon α-2a, recombinant human interferon α-2b, recombinant interferon β, and recombinant interferon γ; and the protective agent is selected from lysine, 2-hydroxypropyl-β-cyclodextrin, and soybean lecithin. The product is free of absorption promoter and human serum albumin (HSA). The preparation method comprises the steps of mixing all ingredients, removing water content from the mixture by volatilization, and performing milling with a jet mill or ball mill or alternatively spray drying to obtain particles with an average grain size of less than 10 μm.

L2 ANSWER 17 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2007:114095 CAPLUS
DN 146:190518
TI Pharmaceutical compositions of eplerenone
IN Deshmukh, Vaibhav Panditrao; Khachane, V. S.; Chaudhari, G. N.; Bhamre, N. B.
PA Glenmark Pharmaceuticals Limited, India
SO PCT Int. Appl., 23pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2007012960	A1	20070201	WO 2006-IB2072	20060728
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
IN 2005MU00891	A	20070622	IN 2005-MU891	20050729
PRAI IN 2005-MU891	A	20050729		
US 2005-720957P	P	20050927		

AB This invention relates to aldosterone antagonist particles such as eplerenone particles having a D90 particle size of less than 25 μ and greater than 15 μ are provided. Also provided are pharmaceutical comprns. containing the aldosterone antagonist particles. Thus, eplerenone was micronized by being passed through a spiral jet mill at a feed rate of about 500 g/h using a compressed air pressure of 4 kg/cm2 to 5 kg/cm2. The micronized eplerenone obtained was measured for its particle size through a Malvern particle size analyzer. The D90 of the eplerenone particles was 15.17 μ.
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 18 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2007:78193 CAPLUS
DN 146:212804
TI New oral nanoparticle formulation of nest of Collocalia esculenta
IN Chen, Baorong
PA Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 8pp.
CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI CN 1895273	A	20070117	CN 2006-10086746	20060620
PRAI CN 2006-10086746		20060620		

AB The invention provides new oral nanoparticle formulation of nest of Collocalia esculenta. The method comprises drying edible bird's nest, pulverizing to obtain fine powders (95% of which can pass through 200-mesh sieve), micronizing the fine powders with a jet mill to obtain nanoparticles (90% of which have diameter below 500 nm), and manufacturing into tablets, granule or powders. Compared with the conventional decoction pieces, the nanoparticles have the advantages of high absorption rate and low dosage.

L2 ANSWER 19 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2007:75095 CAPLUS
DN 146:128460
TI Ultradispersed unossified antler powder as agent for balneotherapy
IN Grechko, G. M.; Nerushai, S. A.
PA OAO "Eksirus", Russia
SO Russ., 14pp.
CODEN: RUXXE7
DT Patent
LA Russian
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI RU 2291702	C2	20070120	RU 2004-126286	20040902
WO 2007049986	A1	20070503	WO 2005-RU524	20051027
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
PRAI RU 2004-126286	A	20040902		

AB The claimed powder from unossified antlers has particle size of 0.1-30.0 μm, contains nonradioactive carbon isotope C13 in amount of at least 1.3 % based on total carbon content in finished product, zeolite as sorbent and salt additives in amount (mass %): sorbent 5.0-15.0; salt additives 15.0-35.0; and balance: powder from unossified antlers up to 100 %. The method for production of ultradispersed powder from unossified antlers includes mech. wool removing from unossified antlers of maral, Siberian stag, dapped deer, or reindeer; material crushing to produce particles having size of 5-10 mm; drying thereof with air flow at 70° Cor less; secondary crushing to produce particles having average size of 0.1 mm and secondary drying thereof with air flow at the same temperature; addition under stirring of abrasive powder with residual humidity of at most 3 mass % into obtained product in amount sufficient for effective product crushing; grinding of obtained mixture in jet mill in presence of said abrasive powder to produce ultradispersed powder with particle size of 0.1-30 μm and humidity of at most 3 mass % followed by pre-packing of finished product in vacuumed containers. As abrasive powder mixture of salt additives with zeolite sorbent in ratio 1:1-5:1 having particle size of at most 150 μm is used in amount of at least 20 % based on mass of grinding material. Agent for balneotherapy has contains aqueous-alc. extract from abovementioned ultradispersed powder composition in amount of (mass %) powder from unossified antlers 1.0-10.0; alc. 35.0-45.0; and balance water up to 100 %. Solution for balneotherapy contains (mass %): abovementioned agent 0.0001-0.07 and balance: water up to 100 %.

L2 ANSWER 20 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2007:61351 CAPLUS
DN 146:128686
TI Process for milling and preparing powders for pharmaceutical compositions
IN Talton, James D.
PA Nanotherapeutics, Inc., USA
SO PCT Int. Appl., 43pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2007008480	A1	20070118	WO 2006-US25918	20060630
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	CA 2614409	A1	20070118	CA 2006-2614409	20060630
	US 20080029625	A1	20080207	US 2006-428064	20060630
	EP 1922150	A1	20080521	EP 2006-786179	20060630
	R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
	JP 2009500163	T	20090108	JP 2008-520325	20060630
	IN 2008KN00531	A	20081107	IN 2008-KN531	20080205
PRAI	US 2005-696464P	P	20050707		
	WO 2006-US25918	W	20060630		

AB A method of milling a powder comprising introducing a gas stream containing a cryogenic liquid and a drug carrier gas into a jet mill, and milling a powder with the jet mill in one or more milling passes. A product produced by the method. A milling apparatus comprising a cryogenic gas input system, a powder feeder, a main jet-mill, and at least one output port for collecting the powder. Acyclovir, PVP and zinc acetate were mixed in a mixer for 10 min. A liquid and gas nitrogen mixture was adjusted in such a manner as to produce 90 psi. The powder was fed into the mill over 5 min and the resulting powder was obtained in the bag with a yield of >60 g.
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 21 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2006:1146725 CAPLUS
DN 145:454222
TI Manufacture of powdered foods consisting of core particles and hull material particles by using jet mill
IN Goto, Shoichi
PA Cosumo Raibura Y. K., Japan
SO Jpn. Kokai Tokkyo Koho, 25pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2006296236	A	20061102	JP 2005-119846	20050418
PRAI	JP 2005-119846		20050418		

AB The invention provides a powdered food consisting of core particles which can be taken orally and hull material particles which are fixed by the surface of the core particles. The hull material particles are the fruit bodies and/or myceliums of mushrooms which are grinded at the particle sizes smaller than the cell of the mushrooms. The core particles are (a) grinded particles of plant materials selected from flower, bark, rhizome, tuber, root, leaf, fruit and seed; (b) dried particles of the fermented liqs. which are obtained from the fermentation of the plant materials; and (c) dried particles of the exts. which are extracted from the plant materials or animal materials. The mushrooms used for the hull material particles are tamogitake (Pleurotus cornucopiae) and the core particles are the inhibitory agents for saccharide degrading enzyme activity. The production method of the powdered foods consists of (1) supply process of the core and hull material particles and (2) fixation process of the hull material particles by the surface of the core particles using horizontal rotational flow jet mill which consists of rotational flow formation room, exhaust port, supply nozzle and grinding nozzle. The schematic diagrams of the jet mill are given.

L2 ANSWER 22 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2006:554650 CAPLUS
DN 145:109925
TI The effect of crystal imperfections on particle fracture behavior
AU de Vegt, Onno; Vromans, Herman; Pries, Wim; van der Voort Maarschalk, Kees
CS Department of Pharmaceutics, N.V. Organon, Oss, 5340 BH, Neth.
SO International Journal of Pharmaceutics (2006), 317(1), 47-53
CODEN: IJPHDE; ISSN: 0378-5173
PB Elsevier Ltd.
DT Journal
LA English
AB Micronization of active pharmaceutical ingredients is a process which is sometimes difficult to control. The main purpose of this study was to assess the effect of the pre-existing flaws in the material to be milled. The rate of breakage of four samples of a model compound (sodium chloride), originating from different sources, was determined in a jet mill. It appeared that each type of sodium chloride has a distinct particle rate of breakage and breakage pattern. The nos. of flaws in the different types of sodium chloride have been determined by immersing the sodium chloride particles in a liquid with the same refractive index. This makes the cracks better visible. Microphotographs were made and flaws were counted manually. The study shows that the flaw d. has an impact on the fracture behavior of particles. The degree of fracture tends to increase with increasing flaw d. The paper shows however that the mech. properties of the material as well as the starting particle size dominate the significance of the impact of flaws on fracture behavior.
RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 23 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2006:531448 CAPLUS
DN 145:255698
TI Batch grinding kinetics and particle shape of active pharmaceutical ingredients by fluidized-bed jet-milling
AU Fukunaka, Tadashi; Golman, Boris; Shinohara, Kunio
CS Banyu Pharmaceutical Co., Ltd., 9-1, Kamimutsuna 3-Chome, Okazaki, Aichi, 444-0858, Japan
SO AIChE Annual Meeting, Conference Proceedings, Cincinnati, OH, United States, Oct. 30-Nov. 4, 2005 (2005), 446b/1-446b/16 Publisher: American Institute of Chemical Engineers, New York, N. Y.
CODEN: 69ICFK; ISBN: 0-8169-0996-2
DT Conference; (computer optical disk)
LA English
AB As most of active pharmaceutical ingredients (APIs) developed in pharmaceutical industries have low solubility in water, production of fine particles by milling is performed for the main purpose of improvement of their dissoln. rate. For low solubility APIs, or APIs for specialized formulations such as inhaled delivery, particle size requests are often in the 5-10 μ range. Quite often, the selection of process parameters to achieve a desired milling endpoint is done empirically rather than through engineering approaches. Fluidized-bed jet-mills are relatively new to the pharmaceutical industry compared to loop-style jet-mills and pin-mills. Two of the merits of fluidized-bed jet-mills are less deterioration of APIs quality due to thermal effect (e.g. melt-back) and less shut-down due to compaction over the internal surfaces during the long operation. Though it is known that the grinding mainly depends on inter-particle collision due to jet stream of gas, the grinding characteristics of API in this mill have not been investigated in detail. The present objectives are to analyze the grinding mechanism and to find out the effect of the operating parameters on the breakage and selection functions and on the particle shape by the batch grinding test with a model API, Ethenzamide, in the fluidized-bed jet-mill. Results of this study show that the variation of the residual fraction with the grinding time during milling can be expressed by a math. model using only the first Kapur function to be consistent with exptl. data satisfactorily. The shape of the function was characteristic of API and well fitted to a cubic equation with respect to logarithmic particle diameter The first Kapur function was found to be affected by such operating parameters as the grinding gas pressure, the charge weight of raw material and the linear velocity at the grinding nozzle. Although, under the low grinding pressure, the selection function tends to decrease with increasing charge weight, it was found to increase with decreasing charge under the high pressure. At the same gas flow rate, the selection function increases with the linear gas velocity. According to the assessments of the breakage and the selection functions derived from the first Kapur function, it was found that the grinding of Ethenzamide was mainly caused by attrition, where small fragments are scraped off from the surface of the large particle. This is considered to result from the phys. property of Ethenzamide, as it is expected that organic compds. are difficult to yield volumetric fracture because they have higher elastic properties than inorg. compds. Shape index was also applied to the anal. of the mechanism. It describes a macroscopic shape of a particle outline using the ratio of minor- to major-axis of ellipse which is derived by Fourier transformation. The shape index of product particles by batch-grinding with the fluidized-bed jet-mill was found to increase with the grinding gas flow rate. Since higher gas flow rate leads to larger product particle size at a constant speed of the classifier rotor, the product particles are considered to become more spherical due to the selective grinding of large particles.
RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 24 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2006:528880 CAPLUS
DN 145:89880
TI Method for producing a pharmaceutical aerosol containing bioactive ingredients by using pentafluoropropane as dispersant
IN Li, Tiejun; Huang, Jianren
PA Shandong Jewim Pharmaceutical Co., Ltd., Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 13 pp.
CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI CN 1778390	A	20060531	CN 2004-10084323	20041118
PRAI CN 2004-10084323		20041118		

AB The title pharmaceutical aerosol is made from therapeutic or bioactive ingredients 0.01-1 wt%, pentafluoropropane as dispersant as dispersant 5-50 wt%, a propellant (selected from pl34a (1,1,1,2-tetrafluoroethane) or p227ea (1,1,1,2,3,3,3-heptafluoropropane) or mixture thereof) 50-90 wt%, and adjuvants including stabilizer 0-16 wt%, surfactant 0.001-0.5 wt%, sp. gr. regulator 0-0.5 wt%, taste corrective 0-0.5 wt%, antioxidant 0-1.5 wt%, and antiseptic 0-0.5 wt%, by the steps of (1) vacuum drying or drying under heating solid materials of bioactive ingredients, cooling down to room temperature, and pulverizing with jet mill to give granules having a mean grain size of less than 10 μm; (2) dewatering liquid materials of bioactive ingredients with anhydrous sodium sulfate for at least 24 h; and (3) mixing the above processed bioactive ingredient materials with the dispersant, homogenizing to give intermediate, wrapping the intermediate in a pressure-proof container, mounting valve and sealing, and infilling the propellant. The bioactive ingredients may be selected from therapeutic or diagnostic agent, anti-allergic drug, bronchodilator, antihistamine, anesthetic, etc.

L2 ANSWER 25 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2006:250975 CAPLUS
TI Rhodes Technologies: Specialty API manufacturing in a rapidly changing environment
AU Bonk, Peter J.
CS Research and Development, Rhodes Technologies, Coventry, RI, 02816, USA
SO Abstracts of Papers, 231st ACS National Meeting, Atlanta, GA, United States, March 26-30, 2006 (2006), SCHB-011 Publisher: American Chemical Society, Washington, D. C.
CODEN: 69HYBC
DT Conference; Meeting Abstract; (computer optical disk)
LA English
AB Rhodes Technologies operates a multi-purpose, FDA-registered and DEA certified plant with a complete range of active pharmaceutical ingredients (API) production capabilities, including process development, synthesis, drying, plus advanced micronization suites with state-of-the-art jet mills, as well as dosage form manufacturing suites. Rhodes Technologies has very broad capabilities in developing sophisticated chems. and offer confidential production of high purity APIs and finished dosage forms of innovative pharmaceuticals, as well as marketing and sales services, with a specialization in DEA Controlled Substaces.

L2 ANSWER 26 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2006:200244 CAPLUS
DN 145:130422
TI Milling of organic solids in a jet mill. Part 2: checking the validity of the predicted rate of breakage function
AU de Vegt, Onno; Vromans, Herman; Faassen, Fried; van der Voort Maarschalk, Kees
CS Department of Pharmaceutics, N.V. Organon, Oss, 5340 BH, Neth.
SO Particle & Particle Systems Characterization (2005), Volume Date 2006, 22(4), 261-267
CODEN: PPCHEZ; ISSN: 0934-0866
PB Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English
AB The particle size distribution of fine chems. in the solid state, like active pharmaceutical ingredients, is often a critical parameter. To achieve the desired particle size distribution, milling of such materials is usually the method of choice. Since these chems. are often scarcely available, exptl. optimization of milling is not possible. Therefore, a model to predict the milling conditions has been developed. The model ests. the rate of breakage function, and needs mech. properties like hardness and yield strength as input to calculate the rate of breakage function. This paper attempts to check the validity of the model by a series of expts. A comparison of the exptl. results with the outcomes of the model using five different model compds. has been performed. It appears that the rate of breakage function can be estimated by: Si = 5.85(±1.78)108 Ekin Bfract √Py/ρ/V H √xi Klc. The model is able to rank the compds. by degree of fracture as an effect of milling. It was also possible to perform a quant. prediction of the impact of milling pressure on the milling behavior. Finally, it appeared that the prediction of the large particles in the distribution was significantly better than small ones. Because the oversized material is usually the most critical parameter, the conclusion is that the model has acceptable practical applicability.
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 27 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2006:199632 CAPLUS
DN 144:337772
TI Batch grinding kinetics of Ethenzamide particles by fluidized-bed jet-milling
AU Fukunaka, Tadashi; Golman, Boris; Shinohara, Kunio
CS Banyu Pharmaceutical Co., Ltd., Okazaki, Aichi, 444-0858, Japan
SO International Journal of Pharmaceutics (2006), 311(1-2), 89-96
CODEN: IJPHDE; ISSN: 0378-5173
PB Elsevier Ltd.
DT Journal
LA English
AB Ethenzamide solids as a representative active pharmaceutical ingredient (API) were batch-ground by a fluidized-bed jet-mill which is a relatively new equipment and promising for production in the pharmaceutical field. Thus, the characteristic grinding mechanism was investigated. As a result, the variation of the residual ratio with grinding time after milling was expressed simply by a math. model using only the first Kapur function, and it was consistent with exptl. data satisfactorily. As the shape of the function was much different from that of inorg. compound and peculiar to API, a cubic function with respect to particle diameter was defined newly and well fitted to the exptl. data. The function was also found to be affected by the operating parameters as the grinding gas pressure, the charge weight of raw material and the linear velocity at the grinding nozzle. According to the assessments of the breakage and the selection functions derived from the first Kapur function, it was found that the grinding mechanism of Ethenzamide particles was related with particle attrition mainly.
RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 28 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2006:80378 CAPLUS
DN 145:109874
TI Influence of nanomechanical crystal properties on the comminution process of particulate solids in spiral jet mills
AU Zuegner, Sascha; Marquardt, Karin; Zimmermann, Ingfried
CS Institute of Pharmaceutical Technology, University of Wurzburg, Wurzburg, Germany
SO European Journal of Pharmaceutics and Biopharmaceutics (2006), 62(2), 194-201
CODEN: EJPBEL; ISSN: 0939-6411
PB Elsevier B.V.
DT Journal
LA English
AB Elastic-plastic properties of single crystals are supposed to influence the size reduction process of bulk materials during jet milling. According to Pahl and H. Rumpf: fracture toughness, maximum strain or work of fracture for example are strongly dependent on mech. parameters like hardness (H) and young's modulus of elasticity (E). In addition the dwell time of particles in a spiral jet mill proved to correlate with the hardness of the feed material. Therefore near-surface' properties have a direct influence on the effectiveness of the comminution process. The mean particle diameter as well as the size distribution of the ground product may vary significantly with the nanomech. response of the material. Thus accurate measurement of crystals' hardness and modulus is essential to determine the ideal operational micronisation conditions of the spiral jet mill. The recently developed nanoindentation technique is applied to examine subsurface properties of pharmaceutical bulk materials, namely calcite, sodium ascorbate, lactose and sodium chloride. Pressing a small sized tip into the material while continuously recording load and displacement, characteristic diagrams are derived. The math. evaluation of the force-displacement-data allows for calcn. of the hardness and the elastic modulus of the investigated material at penetration depths between 50-300 nm. Grinding expts. performed with a modified spiral jet mill (Type Fryma JMRS 80) indicate the strong impact of the elastic-plastic properties of a given substance on its breaking behavior. The fineness of milled products produced at constant grinding conditions but with different crystalline powders varies significantly as it is dependent on the nanohardness and the elasticity of the feed material. The anal. of this correlation gives new insights into the size reduction process.
RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 29 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2006:68133 CAPLUS
DN 145:50688
TI Variation in particle shape of active pharmaceutical ingredients prepared by fluidized-bed jet-milling
AU Fukunaka, Tadashi; Sawaguchi, Kohta; Golman, Boris; Shinohara, Kunio
CS Process R & D, Banyu Pharmaceutical Co., Ltd., 3-9-1 Kamimutsuna, Okazaki City, 444-0858, Japan
SO Yakugaku Zasshi (2005), 125(12), 951-957
CODEN: YKKZAJ; ISSN: 0031-6903
PB Pharmaceutical Society of Japan
DT Journal
LA Japanese
AB In pharmaceutical industries, most active pharmaceutical ingredients are poorly water soluble, and therefore milling processes are important to obtain fine particles that can be easily dissolved in the body. However, the main purpose of milling is micronization of particles. From the viewpoint of fine particle preparation in the formulation process, milling has not been investigated sufficiently. In this paper, ethenzamide was milled under various operating conditions using a fluidized-bed jet-mill. It was found that not only the particle size but also the particle shape varied with the milling conditions. The relationship between particle shape and milling conditions has been obtained exptl.

L2 ANSWER 30 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2005:404689 CAPLUS
DN 143:353080
TI Effect of particle shape of active pharmaceutical ingredients prepared by fluidized-bed jet-milling on cohesiveness
AU Fukunaka, Tadashi; Sawaguchi, Kohta; Golman, Boris; Shinohara, Kunio
CS Banyu Pharmaceutical Co., Ltd., Aichi, 444-0858, Japan
SO Journal of Pharmaceutical Sciences (2005), 94(5), 1004-1012
CODEN: JPMSAE; ISSN: 0022-3549
PB Wiley-Liss, Inc.
DT Journal
LA English
AB Milling is a common procedure to improve bioavailability of many active pharmaceutical ingredients (APIs), which typically have low solubility in water. But such micronization can yield an increase in the cohesiveness of particles. Although particle cohesiveness is desirable for tablet strength in the subsequent formulation process, increased particle cohesiveness can lead to operational difficulties in a milling equipment due to compaction of particles inside. In this article, the impact of milling via a fluidizedbed jet-mill on the cohesive strength and interparticle force was studied using Ethenzamide as a pharmaceutical model compound. As a result, the particle shape was found to affect both the tensile strength of powder bed and the interparticle cohesive force. A powder bed, having relatively high void fraction by direct tensile test, shows a pos. correlation between the cohesive force and the particle sphericity, while powders with low void fraction by diametral compression test show a pos. correlation between the cohesive force and the angularity of the particle.
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 31 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2004:996180 CAPLUS
DN 141:427991
TI Microcrystals of (E)-8-(3,4-dimethoxystyryl)-1,3-diethyl-7-methyl-3,7-dihydro-1H-purine-2,6-dione
IN Kuroda, Kazutoshi; Aoki, Noboru; Ochiai, Toshiro; Uchida, Akihiro; Ishikawa, Yasuhiro; Kigoshi, Makoto; Hayakawa, Eiji; Asanome, Kazuki
PA Kyowa Hakko Kogyo Co. Ltd., Japan
SO PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004099207	A1	20041118	WO 2004-JP6495	20040507
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2004236101	A1	20041118	AU 2004-236101	20040507
	CA 2525037	A1	20041118	CA 2004-2525037	20040507
	EP 1626049	A1	20060215	EP 2004-731752	20040507
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
	CN 1784405	A	20060607	CN 2004-80011873	20040507
	CN 100395245	C	20080618		
	US 20060205745	A1	20060914	US 2005-554511	20051026
	IN 2005CN03327	A	20070601	IN 2005-CN3327	20051208
PRAI	JP 2003-131417	A	20030509		
	WO 2004-JP6495	W	20040507		

AB Claimed are microcrystals of (E)-8-(3,4-dimethoxystyryl)-1,3-diethyl-7-methyl-3,7-dihydro-1H-purine-2,6-dione (I) with average particle diameter less than 50 μm; also claimed are microcrystals of I with average particle diameter of 0.5 to 20 μm; another claim specifies that microcrystals of I with average particle diameter less than 50 μm or with average particle diameter of 0.5 to 20 μm and 40% or higher degree of crystallinity are claimed; also claimed is a solid pharmaceutical preparation containing microcrystals of I. I is a known agent for the treatment of Parkinson's disease, asthma, etc. Crystals of I (average particle diameter : 181 μm, crystallinity : 71.6%) was pulverized by a jet mill at 0.25 MPa to give microcrystals of I (average particle diameter : 11 μm; crystallinity 67.3%). Microcrystals of this invention show excellent solubility, stability, bioavailability and dispersibility in drug preps. A formulation for tablets contains microcrystals of I 40 mg, lactose 110 mg, microcryst. cellulose 44 mg, polyvinylpyrrolidone 4 mg, and magnesium stearate 2 mg.
RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 32 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2004:528932 CAPLUS
DN 142:212210
TI Hepatoprotective effects of amorphous and nano-particle preparations of ursodeoxycholic acid in CCl4-induced mice: effects of three types of fine grinding mills
AU Chung, Han Young; Lee, Ji Hyoen; Kim, Ae Ra; Park, Tae Hyun; Chung, Hae Young; Kim, You Jung; Kwak, Seung Sin; Kim, Hyun Il; Choi, Woo Sik
CS Interdisciplinary Program in Powder Technology, Graduate School, Pusan National University, Pusan, 609-735, S. Korea
SO Journal of Applied Pharmacology (2002), 10(1), 1-6
CODEN: JOAPA6; ISSN: 1225-6110
PB Korean Society of Applied Pharmacology
DT Journal
LA Korean
AB The particle size of medicinal materials is an important phys. property that affects the pharmaceutical behaviors such as dissoln., chemical stability, and bioavailability of solid dosage forms. The size reduction of raw medicinal powder is needed to formulate insol. drugs or slightly soluble medicines and to improve the pharmaceutical properties such as the solubility, the pharmaceutical mixing, and the dispersion. The objective of the present study is to evaluate physiol. activity of amorphous and nano-particle prepns. of insol. drug, ursodeoxycholic acid (UDCA), which were made by three types of fine grinding mills. The change of phys. properties of ground UDCA was conformed by Mastersiger microplus and X-ray diffraction. We have investigated hepatoprotective effects of the nano-particle prepns. of UDCA by planetary mill, vibration rod mill and jet mill in CCl4-induced oxidatively injured mouse liver. The results showed that nano-particle prepns. of UDCA all decreased reactive oxygen species generation and lipid peroxidn. in CCl4-induced oxidative stress mice. Among them, nano-particle prepns. by vibration rod mill and jet mill showed more significantly hepatoprotective effects compared to intact UDCA and planetary mill-ground UDCA. These results suggest that ground UDCA with vibration rod mill and jet mill shows a high amorphous state and the improved dissoln.

L2 ANSWER 33 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2004:510701 CAPLUS
DN 141:76723
TI Methods and apparatus for making particles using spray dryer and in-line jet mill
IN Chickering, Donald E.; Narasimhan, Sridhar; Altreuter, David; Kopesky, Paul; Keegan, Mark; Straub, Julie A.; Bernstein, Howard
PA Acusphere, Inc., USA
SO U.S. Pat. Appl. Publ., 19 pp.
CODEN: USXXCO
DT Patent
LA English
PAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20040118007	A1	20040624	US 2002-324943	20021219
	US 6962006	B2	20051108		
	CA 2511376	A1	20040722	CA 2003-2511376	20031120
	WO 2004060547	A1	20040722	WO 2003-US37108	20031120
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2003295704	A1	20040729	AU 2003-295704	20031120
	AU 2003295704	B2	20080508		
	EP 1575696	A1	20050921	EP 2003-786905	20031120
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	BR 0316595	A	20051122	BR 2003-16595	20031120
	CN 1726076	A	20060125	CN 2003-80106437	20031120
	JP 2006514879	T	20060518	JP 2004-565053	20031120
	RU 2324533	C2	20080520	RU 2005-122655	20031120
	IL 168746	A	20080807	IL 2003-168746	20031120
	US 20040134091	A1	20040715	US 2004-752861	20040107
	US 6921458	B2	20050726		
	US 20040139624	A1	20040722	US 2004-752910	20040107
	US 6918991	B2	20050719		
	ZA 2005004300	A	20051128	ZA 2005-4300	20050526
	US 20050209099	A1	20050922	US 2005-142917	20050602
	IN 2005KN01086	A	20060526	IN 2005-KN1086	20050607
PRAI	US 2002-324943	A	20021219		
	WO 2003-US37108	W	20031120		

AB Methods and apparatus are provided for making particles comprising: (a) spraying an emulsion, solution, or suspension, which comprises a solvent and a bulk material (e.g., a pharmaceutical agent), through an atomizer and into a primary drying chamber, having a drying gas flowing through it, to form droplets comprising the solvent and bulk material dispersed in the drying gas; (b) evaporating, in the primary drying chamber, at least a portion of the solvent into the drying gas to solidify the droplets and form particles dispersed in drying gas; and (c) flowing the particles and at least a portion of the drying gas through a jet mill to de-agglomerate or grind the particles. By coupling spray drying with in-line jet milling, a single step process is created from two sep. unit operations, and an addnl. collection step is advantageously eliminated. The 1-step, in-line process has further

L2 ANSWER 33 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)
advantages in time and cost of processing.
RE.CNT 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 34 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2003:761396 CAPLUS
DN 140:326853
TI R & D of milling technology in pharmaceutical industry
AU Fukunaka, Tadashi; Tom, Jean W.
CS Process R & D Lab., Banyu Pharmaceutical Co., Ltd., Okazaki, 444-0858, Japan
SO Funtai Kogaku Kaishi (2003), 40(9), 655-663
CODEN: FKKADA; ISSN: 0386-6157
PB Funtai Kogakkai
DT Journal
LA Japanese
AB In the pharmaceutical industry, milling process is important to improve the solubility of the bulk drug by grinding them into the small particle size. Small particles as the bulk drug help patients to be easily dissolved in their body, because most of them have very low solubility However, the grinding characteristics and scale-up methodologies of ordinary milling techniques for pharmaceutical compds. have hardly ever been reported. Five kinds of milling techniques (jet-mill, fluidized jet-mill, pin-mill, cosmomizer, and cavitation-mill) for the drug: MK-J1, which we have developed, were evaluated on the basis of the particle size of the milled material and the durability and the scale-ability of these techniques. From this study, the fluidized jet-mill can be found to obtain the finest particle in size and the sharpest distribution and show the most durability. The scale-up number, Fn, derived from the dynamic balance of a centrifugal classifier was defined as the scale-up factor and its application-ability was also evaluated using the larger scale equipment.

L2 ANSWER 35 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2001:780654 CAPLUS
DN 135:322746
TI Pharmaceutical formulations containing magnesium stearate and sugar for dry powder inhalers in the form of hard-pellets
IN Staniforth, John Nicholas; Vodden Morton, David Alexander; Gill, Rajbir; Brambilla, Gaetano; Musa, Rossella; Ferrarini, Lorenzo
PA Chiesi Farmaceutici S.p.A., Italy
SO PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 11

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001078693	A2	20011025	WO 2001-EP4338	20010417
	WO 2001078693	A3	20020117		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2406119	A1	20011025	CA 2001-2406119	20010417
	GB 2363987	A	20020116	GB 2001-9431	20010417
	GB 2363988	A	20020116	GB 2001-9432	20010417
	EP 1274406	A2	20030115	EP 2001-931612	20010417
	EP 1274406	B1	20060913		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	HU 2003000593	A2	20030929	HU 2003-593	20010417
	HU 2003000593	A3	20060728		
	BR 2001010301	A	20031230	BR 2001-10301	20010417
	EE 200200593	A	20040415	EE 2002-593	20010417
	SK 284248	B6	20041201	SK 2002-1491	20010417
	AT 339195	T	20061015	AT 2001-931612	20010417
	EP 1719505	A2	20061108	EP 2006-17742	20010417
	EP 1719505	A3	20070718		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	AT 348603	T	20070115	AT 2001-921610	20010417
	ES 2272473	T3	20070501	ES 2001-931612	20010417
	ES 2275669	T3	20070616	ES 2001-921610	20010417
	EP 1829533	A2	20070905	EP 2007-110708	20010417
	EP 1829533	A3	20071031		
	R: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE, TR, AL, BA, HR, MK, YU				
	AT 377416	T	20071115	AT 2001-921625	20010417
	ES 2292576	T3	20080316	ES 2001-921625	20010417
	ZA 2002008066	A	20030805	ZA 2002-8066	20021008
	NO 2002004980	A	20021217	NO 2002-4980	20021016
	MX 2002010218	A	20030523	MX 2002-10218	20021016
	ZA 2002010225	A	20030618	ZA 2002-10225	20021218
	US 20030180227	A1	20030925	US 2003-257368	20030204
	US 6884794	B2	20050426		
	US 20050201950	A1	20050915	US 2005-73625	20050308
	US 7223748	B2	20070529		
PRAI	GB 2000-9469	A	20000417		

L2 ANSWER 35 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)

	EP 2000-113608	A	20000627
	EP 2001-921625	A3	20010417
	EP 2001-931612	A3	20010417
	WO 2001-EP4338	W	20010417
	US 2003-257368	A1	20030204

AB The invention provides a formulation to be administered as dry powder for inhalation suitable for efficacious delivery of active ingredients into the low respiratory tract of patients suffering of pulmonary diseases such as asthma. In particular, the invention provides a formulation to be administered as dry powder for inhalation freely flowable, which can be produced in a simple way, phys. and chemical stable and able of delivering either accurate doses and high fine particle fraction of low strength active ingredients by using a high- or medium resistance device. For example, α-lactose monohydrate (particle size 50-400 μm) and Mg stearate (particle size 3-35 μm) were co-milled in a jet mill apparatus to obtain a blend A with a reduced particle size. Then 15% of this blend was mixed with 85% of α-lactose monohydrate (particle size 212-355 μm) to obtained a blend B. Micronized formoterol fumarate was added to the blend B and mixed to obtained a ratio of 12 μg of active to 20 mg of carrier; the amount of Mg stearate in the final formulation was 0.3% by weight The final formulation (hard pellet formulation) was loaded in a multidose dry powder inhaler. The formulation showed a good flow properties.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 36 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2001:532195 CAPLUS
DN 135:154539
TI ACHEMA 2000 - mechanical operations
AU Tomosy, Laszlo
CS Vegyipari es Elemiszeripari Gepek Tanszek, Budapesti Muszaki es Gazdasagtudomanyi Egyetem, Budapest, Hung.
SO Magyar Kemikusok Lapja (2001), 56(5), 186-188
CODEN: MGKLAL; ISSN: 0025-0163
PB Magyar Kemikusok Egyesulet
DT Journal
LA Hungarian
AB Liquid filtration by using fully automatic filter presses and membrane filter presses is discussed. Composite metal filter media with very small pore diameter is described. For dust-filtration, new PFTE-coated media are recommended that can be used for wet dust removal. Several equipment were presented for pharmaceutical production with strict cleaning and inspection requirements. Fully automatic fluidized bed jet mill is also described.

L2 ANSWER 37 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2001:434861 CAPLUS
DN 135:37199
TI Cyclooxygenase-2 inhibitor compositions having rapid onset of therapeutic effect
IN Kararli, Tugrul T.; Kontny, Mark J.; Desai, Subhash; Hageman, Michael J.; Haskell, Royal J.
PA Pharmacia Corporation, USA
SO PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 17

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001041760	A2	20010614	WO 2000-US32434	20001206
	WO 2001041760	A3	20011108		
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 747959	B2	20020530	AU 2000-18440	20000221
	HU 2002000580	A2	20021128	HU 2002-580	20001201
	HU 2002000580	A3	20021228		
	NZ 514059	A	20040227	NZ 2000-514059	20001201
	US 20040087640	A1	20040506	US 2000-728040	20001201
	US 7476744	B2	20090113		
	EP 1528058	A1	20050504	EP 2005-2575	20001201
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	NZ 529933	A	20050624	NZ 2000-529933	20001201
	PT 1150960	T	20050630	PT 2000-983865	20001201
	ES 2236011	T3	20050716	ES 2000-983865	20001201
	CN 1679556	A	20051012	CN 2005-10065059	20001204
	CA 2362815	A1	20010614	CA 2000-2362815	20001206
	AU 2001018059	A	20010618	AU 2001-18059	20001206
	AU 784490	B2	20060413		
	US 20020006951	A1	20020117	US 2000-730663	20001206
	US 6964978	B2	20051115		
	EP 1175214	A2	20020130	EP 2000-980850	20001206
	EP 1175214	B1	20041124		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	BR 2000008060	A	20020205	BR 2000-8060	20001206
	JP 2003523954	T	20030812	JP 2001-543105	20001206
	NZ 513964	A	20040130	NZ 2000-513964	20001206
	NZ 513960	A	20040227	NZ 2000-513960	20001206
	HU 2002001463	A2	20040528	HU 2002-1463	20001206
	HU 2002001463	A3	20040628		
	AT 283048	T	20041215	AT 2000-980850	20001206
	EP 1525883	A1	20050427	EP 2004-27798	20001206
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
	PT 1175214	T	20050429	PT 2000-980850	20001206
	ES 2236007	T3	20050716	ES 2000-980850	20001206
	IL 144760	A	20070211	IL 2000-144760	20001206
	AT 387431	T	20080315	AT 2000-982255	20001206
	ES 2299441	T3	20080601	ES 2000-982255	20001206
	TW 276435	B	20070321	TW 2000-89125991	20010518
	TW 255180	B	20060521	TW 2000-89125992	20010531
	NO 2001003859	A	20011008	NO 2001-3859	20010808

L2 ANSWER 37 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)

	MX 2001008058	A	20040405	MX 2001-8058	20010808
	BG 105808	A	20020930	BG 2001-105808	20010809
	BG 65239	B1	20070928		
	ZA 2001007146	A	20020829	ZA 2001-7146	20010829
	ZA 2001007148	A	20021129	ZA 2001-7148	20010829
	ZA 2001007149	A	20030228	ZA 2001-7149	20010829
	IN 2001MN01055	A	20070622	IN 2001-MN1055	20010905
	US 20020142045	A1	20021003	US 2002-113157	20020401
	US 20040265382	A1	20041230	US 2002-31898	20020730
	US 7172769	B2	20070206		
	AU 2002300873	A1	20030220	AU 2002-300873	20020830
	AU 2002300873	B2	20050414		
	ZA 2002007445	A	20031013	ZA 2002-7445	20020917
	AU 2004242560	A1	20050127	AU 2004-242560	20041231
	AU 2004242560	B2	20070222		
	US 20050267190	A1	20051201	US 2005-189659	20050726
	US 7220867	B2	20070522		
	IN 2005MN01068	A	20070817	IN 2005-MN1068	20050930
	US 20070202160	A1	20070830	US 2007-744603	20070504
PRAI	US 1999-169856P	P	19991209		
	AU 1997-13551	A3	19961211		
	US 2000-181635P	P	20000210		
	AU 2000-18440	A3	20000221		
	US 2000-202269P	P	20000505		
	EP 2000-983865	A3	20001201		
	US 2000-728040	A2	20001201		
	WO 2000-US32760	W	20001201		
	AU 2001-20411	A3	20001204		
	CN 2000-805906	A3	20001204		
	EP 2000-980850	A3	20001206		
	US 2000-31898	A2	20001206		
	US 2000-730663	A	20001206		
	WO 2000-US32434	W	20001206		
	US 2001-874504	A1	20010605		
	IN 2001-MN1055	A3	20010905		
	US 2005-189659	A3	20050726		

OS MARPAT 135:37199

AB Pharmaceutical compns. are provided comprise 1 or more orally deliverable dose units, each containing a selective cyclooxygenase-2 inhibitory drug of low water solubility in a therapeutically effective amount, wherein the drug is present in the form of solid particles, about 25-100% by weight of which are <1 μm. The compns. are useful in the treatment or prophylaxis of cyclooxygenase-2 mediated conditions and disorders and have particular advantages where rapid onset of therapeutic effect is desired. Dispersions containing 5% celecoxib were prepared by the following process. The drug was micronized in an air jet mill to form a drug powder. The drug powder was added to an aqueous solution containing 2.5% hydroxypropyl cellulose and 0.12% sodium dodecyl sulfate to form a suspension. The suspension was wet milled to form an intermediate dispersion. Target particle size ranges were varied by controlling magnet rotation rate, milling time and/or bead size.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 38 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2001:82103 CAPLUS
DN 135:277985
TI Ultrafine grinding using a fluidized bed opposed jet mill: effects of process parameters on the size distribution of milled particles
AU Heng, P. W. S.; Chan, L. W.; Lee, C. C.
CS Department of Pharmacy, National University of Singapore, Singapore, 119260, Singapore
SO S.T.P. Pharma Sciences (2000), 10(6), 445-451
CODEN: STSSE5; ISSN: 1157-1489
PB Editions de Sante
DT Journal
LA English

AB Ultrafine grinding is an important unit process in pharmaceutical product development. In this study, a fluidized bed opposed jet mill was used to determine the effects of 3 process parameters in size reduction The size distribution of all the milled products was pos. skewed and could not be fitted by the normal, log normal, Weibull and γ-functions. Thus, non-parametric statistics were applied. Variation of the rotational speed of the classifier wheel was the most efficient method for producing milled products of different sizes. A combination of a high milling pressure of 0.5 MPa and a low feed load of 250 g always resulted in the production of products with a large proportion of particles in the higher size range. A feed load of 450 g resulted in the decreased selectivity of the classifier wheel. A milling pressure of 0.5 MPa yielded a product with the smallest median particle size.

RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 39 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1999:618597 CAPLUS
DN 131:228025
TI Processing of medicinal mushrooms, and crude drugs and health food containing the processed products
IN Miyake, Fuminori
PA Ginas K. K., Japan; Hakusui Chem Industry, Ltd.
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11262373	A	19990928	JP 1998-69027	19980318
PRAI	JP 1998-69027		19980318		

AB Suspensions of mushrooms as materials for crude drugs and health food, other than Agaricus, are milled into microparticles by a wet jet mill. Active components in the mushrooms may be extracted after milling. The microparticles or exts. may be further treated with cyclodextrins by a wet jet mill for inclusion of the active components with the cyclodextrin. The method makes it possible to effective extraction of active components from mushrooms. Also claimed are crude drugs and health food containing the active components obtained as described above. Lentinus edodes powder was suspended in H2O and the suspension was processed by a wet jet mill at 30 MPa (flow rate at the confluent point 140 m/s) 3 passes and at 150 MPa (flow rate of the confluent point 290 m/s) 3 passes. The processed suspension showed particle size 7.62 μm with 100% cell breakage. Inclusion of active components in the suspension with cyclodextrin using a wet jet mill and spray-drying of the inclusion compds. were also shown.

L2 ANSWER 40 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1999:557868 CAPLUS
DN 131:303332
TI Micronization of pharmaceutical substances in a spiral jet mill
AU Midoux, N.; Hosek, P.; Pailleres, L.; Authelin, J. R.
CS I.N.P.L, Ecole Nationale Superieure des Industries Chimiques, Nancy, Fr.
SO Powder Technology (1999), 104(2), 113-120
CODEN: POTEBX; ISSN: 0032-5910
PB Elsevier Science S.A.
DT Journal
LA English

AB Many studies were conducted to help understand the effects of the variables involved in jet milling. The first part of this work is an attempt to summarize the results published in the literature concerning horizontal and vertical jet mills. This focuses on the research of the optimal design of the mills and on the improvement of their performance. Several publications have been found, concerning mineral grinding. It seemed more interesting to present results on organic crystals' jet milling in the second part of this paper. The expts. concern 3 organic substances, and were run on 3 different spiral jet mills: Chrispro-Jetmill 50 and 100 and MicronMills 8. The results are presented in terms of specific energy consumption with an adaptation of the correlation proposed by earlier workers. These representations show that, within the operating energy range and above a critical energy value, the creation of sp. surface area corresponds to an increase of fine particles production

RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 41 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1998:388192 CAPLUS
DN 129:94724
OREF 129:19539a,19542a
TI Method for dissolving lipophilic material.
IN Toda, Atsushi; Mitake, Kazutoshi; Kanari, Tsutomu; Miyake, Fuminori; Hiki, Rumiko; Mikuni, Katsuhiko; Hara, Kozo
PA Ensuiko Sugar Refining Co., Ltd., Japan; Genius K. K.; Hakusui Chem Industry, Ltd.
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 10156161	A	19980616	JP 1996-333082	19961129
PRAI JP 1996-333082		19961129		

AB Solubility of lipophilic materials such as vitamin E is improved by treatment with wet-type jet mill in the presence of cyclodextrin. The method provides better inclusion, emulsification, and efficiency. The dissolved lipophilic materials are useful for manufacturing food, cosmetic, pharmaceutical, etc.

L2 ANSWER 42 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1996:621199 CAPLUS
DN 125:257177
OREF 125:47855a,47858a
TI Tablets or granules containing Chlorella powder
IN Maruyama, Isao; Nakao, Takashi; Tanaka, Yoshimasa; Ando, Yotaro
PA Chlorella Ind, Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 08188721	A	19960723	JP 1995-581	19950106
PRAI JP 1995-581		19950106		

AB Chlorella powder for use in manufacturing tablets or granules are prepared by spray-drying of cultured Chlorella and treating the resultant product with jet mill for pulverization. Tablets or granules containing low level (20%) or high level (60%) of the Chlorella powder as colorant all showed green color.

L2 ANSWER 43 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1996:476916 CAPLUS
DN 125:123763
OREF 125:23033a,23036a
TI Powder formulations containing melezitose as a diluent
IN Baeckstroem, Kjell; Johansson, Ann; Linden, Helena
PA Astra Aktiebolag, Swed.
SO PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9619207	A1	19960627	WO 1995-SE1541	19951219
W: AL, AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
ZA 9510753	A	19960624	ZA 1995-10753	19951218
CA 2206803	A1	19960627	CA 1995-2206803	19951219
AU 9643592	A	19960710	AU 1996-43592	19951219
AU 702898	B2	19990311		
EP 799030	A1	19971008	EP 1995-942342	19951219
EP 799030	B1	20020724		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, LT, LV				
CN 1171049	A	19980121	CN 1995-196965	19951219
CN 1080114	C	20020306		
BR 9510422	A	19980707	BR 1995-10422	19951219
HU 77648	A2	19980728	HU 1998-493	19951219
HU 217975	B	20000528		
JP 10510828	T	19981020	JP 1996-519731	19951219
RU 2144819	C1	20000127	RU 1997-112496	19951219
EE 3381	B1	20010416	EE 1997-135	19951219
CZ 288487	B6	20010613	CZ 1997-1946	19951219
TW 474823	B	20020201	TW 1995-84113557	19951219
EP 1224929	A2	20020724	EP 2001-130870	19951219
EP 1224929	A3	20021218		
EP 1224929	B1	20040721		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, LT, LV				
AT 220900	T	20020815	AT 1995-942342	19951219
PL 183944	B1	20020830	PL 1995-320751	19951219
IL 116459	A	20021110	IL 1995-116459	19951219
PT 799030	T	20021129	PT 1995-942342	19951219
ES 2177674	T3	20021216	ES 1995-942342	19951219
SK 283147	B6	20030304	SK 1997-812	19951219
AT 271382	T	20040815	AT 2001-130870	19951219
PT 1224929	T	20041029	PT 2001-130870	19951219
ES 2222306	T3	20050201	ES 2001-130870	19951219
IN 1995DE02393	A	20050311	IN 1995-DE2393	19951222
US 6004574	A	19991221	US 1996-617753	19960318
NO 9702660	A	19970610	NO 1997-2660	19970610
NO 315966	B1	20031124		
FI 9702654	A	19970619	FI 1997-2654	19970619
HK 1003619	A1	20021115	HK 1998-102788	19980402
PRAI SE 1994-4468	A	19941222		
EP 1995-942342	A3	19951219		
WO 1995-SE1541	W	19951219		

AB A powder formulation for the administration of medically useful polypeptides, comprises the polypeptides with melezitose as diluent. For example, 12 parts insulin was dissolved in distd. water and 4 parts Na taurocholate (absorption enhancer) was added. Melezitose 84 parts was added to the above mixt. and pH was adjusted to 7.4. The soln. was concd. by evapn. of the water and the obtained solid cake was crushed, sieved, and micronized in a jet mill. The micronized powder was agglomerated and filled into a dry powder inhaler.
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 44 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1996:288131 CAPLUS
DN 124:293405
OREF 124:54327a,54330a
TI Method of milling.
IN Haddow, Andrew John
PA S. Afr.
SO S. African, 17 pp.
CODEN: SFXXAB
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	ZA 9309369	A	19940808	ZA 1993-9369	19931214
	JP 06226133	A	19940816	JP 1993-324837	19931222
PRAI	GB 1992-26994	A	19921224		

AB The milling of a particulate material comprises passing a gas (steam or air) through a jet nozzle of a jet mill while feeding the particulate material (an inorg. pigment, an organic-colored pigment or a pharmaceutical composition) from a holding vessel containing the material through an inlet to be entrained by the gas and passing the mixture of gas and entrained particles so formed into the jet mill. The amount of particulate material in the holding vessel is insufficient to fill the vessel thus creating an ullage and a gas is maintained in the ullage at a pressure of ≥0.05 MPa above atmospheric pressure but less than the pressure at which gas is introduced to the jet nozzle.

L2 ANSWER 45 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1996:27016 CAPLUS
DN 124:97477
OREF 124:18021a,18024a
TI Improvement of dissolution characteristics of a new chalcone derivative, SU-740: comparison between size reduction, solid dispersion and inclusion complexation
AU Ito, Shusei; Demachi, Miki; Toriumi, Yumiko; Adachi, Takeshi; Itai, Shigeru; Hirayama, Fumitoshi; Uekama, Kaneto
CS Research Center, Taisho Pharmaceutical Co., Ltd., Saitama, 330, Japan
SO Chemical & Pharmaceutical Bulletin (1995), 43(12), 2221-5
CODEN: CPBTAL; ISSN: 0009-2363
PB Pharmaceutical Society of Japan
DT Journal
LA English
AB Three pharmaceutical techniques, i.e., size-reduction, solid dispersion and inclusion complexation, were employed for improvement of the dissoln. rate of 4-tert-butyl-2'-carboxymethoxy-4'-(3-methyl-2-butenyloxy)chalcone (SU-740). For the size reduction, pulverization was performed using a jet mill. The solid dispersions of SU-740 were prepared with polyethylene glycol 6000 and polyvinylpyrrolidone K29/32. The inclusion complexes of SU-740 with 3 natural cyclodextrins (α-, β-, γ-CyDs) were prepared by the freeze-drying method, or they were isolated according to the Bs type phase-solubility diagram. The dissoln. rates of SU-740 from the PVP coppt. and the β-CyD complex were much larger than that of the size-reduced form. On accelerated storage (40° and 75% relative humidity) for 1 mo, the PVP coppt. showed a decrease in the dissoln. rate and a change in appearance, whereas the β-CyD complex showed no changes. The inclusion complexation is preferable among the 3 techniques employed for improving of the dissoln. characteristics of SU-740.

L2 ANSWER 46 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1995:358919 CAPLUS
DN 122:115014
OREF 122:21399a,21402a
TI Liposome powders for pharmaceutical compositions
IN Schreier, Hans
PA Advanced Therapies, Inc., USA
SO PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9428876	A1	19941222	WO 1994-US6137	19940531
	W: CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
PRAI	US 1993-73234	A	19930607		

AB A procedure for producing dry liposome powders (to improve their stability) which can be formulated into a variety of pharmaceutical compns. involves micronizing lyophilized liposome cakes with a jet mill or other devices to generate dry powders with a diameter of 1-100 μm. Nine grams soya phosphatidylcholine (115 mM) were dispersed in 100 mL aqueous solution containing 8.6 g lactose (345 mM). Liposomes were extruded through a polycarbonate membrane and lyophilized. The lyophilized cake was scraped into a jet mill and the mill operated under N so as to minimize potential oxidation and absorption of water. Liposomes were milled for 3 min at a inlet pressure of 40 psig. A majority of the mass introduced into the jet mill was collected in the cyclone of the mill representing a particle size of 5-10 μm diameter. These powders could be introduced into capsules or used as powder inhalants.
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 47 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1990:558707 CAPLUS
DN 113:158707
OREF 113:26869a,26872a
TI Pharmaceutical compositions containing micronized piroxicam
IN Fekete, Pal; Bezzegh, Denes; Simonyi, Istvan; Maroshelyi, Biborka; Zukovics, Katalin; Tombor, Janos
PA EGIS Gyogyszergyar, Hung.
SO Brit. UK Pat. Appl., 17 pp.
CODEN: BAXXDU
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2224207	A	19900502	GB 1989-24286	19891027
	GB 2224207	B	19920610		
	HU 51143	A2	19900428	HU 1988-5621	19881028
	HU 200926	B	19900928		
	JP 02172918	A	19900704	JP 1989-270514	19891019
	CA 2001673	A1	19900428	CA 1989-2001673	19891027
	CA 2001673	C	19960827		
	FR 2638357	A1	19900504	FR 1989-14117	19891027
	FR 2638357	B1	19931022		
	IL 92138	A	19940826	IL 1989-92138	19891027
	DE 3936112	A1	19900531	DE 1989-3936112	19891030
	DE 3936112	C2	19990218		
PRAI	HU 1988-5621	A	19881028		

AB The present invention relates to an oral pharmaceutical composition comprising piroxicam as active ingredient and lactose as a carrier in micronized form, i.e. ≥90% of the composition has a particle size <30 μm. The composition may be made up into tablets and capsules. The preparation comprising the micronized piroxicam crystals allows the desired dissoln. rate and the scattering of the active ingredient content. Thus, piroxicam 300, mannitol 300, and aerosil 200 g were mixed and micronized in Fryma JM-80 air-jet mill by adjusting the air value to 6 bar; lactose 1800 and Na lauryl sulfate 3.6g were homogenized and triturated; the above micronized powder, triturated powder, lactose 3582, corn starch 1160.4, and Mg stearate 0.3g were totally mixed, homogenized, and formed into capsules and tablets.

L2 ANSWER 48 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1989:28984 CAPLUS
DN 110:28984
OREF 110:4791a,4794a
TI Morphic features variation of solid particles after size reduction: sonification compared to jet mill grinding
AU Thibert, R.; Akbarieh, M.; Tawashi, R.
CS Fac. Pharm., Univ. Montreal, Montreal, QC, Can.
SO International Journal of Pharmaceutics (1988), 47(1-3), 171-7
CODEN: IJPHDE; ISSN: 0378-5173
DT Journal
LA English
AB Fourier descriptors of the contour were used to evaluate the effect of sonification and jet mill grinding on particle shape. While jet mill grinding produced particles with smoother boundary, less elongation and higher degree of roundness, sonification yielded fragments closer in shape to the original crystal. Data obtained suggest that the morphic features of daughter fragments are determined mainly by the mechanism of size reduction and material structure.

L2 ANSWER 49 OF 49 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1976:46555 CAPLUS
DN 84:46555
OREF 84:7647a
TI Milling in air-pressure centrifugal mills
AU Lewandowski, Maciej
CS Inst. Masz. Hutn. Autom., Akad. Gorn.-Hutn., Krakow, Pol.
SO Inzynieria i Aparatura Chemiczna (1975), 14(1), 24-7
CODEN: IZACAX; ISSN: 0368-0827
DT Journal
LA Polish
AB Air jet mills were examined for milling various inorg. substances. The 3 types investigated had milling chamber diams. 100, 300, and 400 mm and capacities 10, 80, and 150 kg/hr., resp. They were superior to other mills with regard to homogeneity, very small particle product size, and contamination. The advantage of jet mills is apparent especially when using hot gas or steam. The latter also enables operation under sterile conditions, which makes it suitable for pharmaceuticals.

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=> => d que l10 stat
L3             5 SEA FILE=CAPLUS ABB=ON  PLU=ON  "IZAWA NAOTO"/AU
L4             1 SEA FILE=CAPLUS ABB=ON  PLU=ON  "SATOH NORIE"/AU
L5            35 SEA FILE=CAPLUS ABB=ON  PLU=ON  "YAGI NOBUHIRO"/AU
L6             3 SEA FILE=CAPLUS ABB=ON  PLU=ON  "OUCHI KAZUE"/AU
L7             6 SEA FILE=CAPLUS ABB=ON  PLU=ON  "NARITA SHOICHI"/AU
L8            27 SEA FILE=CAPLUS ABB=ON  PLU=ON  "AOKI NOBORU"/AU
L9            70 SEA FILE=CAPLUS ABB=ON  PLU=ON  L3 OR L4 OR L5 OR L6 OR L7 OR
                 L8
L10            2 SEA FILE=CAPLUS ABB=ON  PLU=ON  L9 AND (MICROCRYSTAL?)

=> d 1-2 bib abs
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L10 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2005:540584 CAPLUS
DN 143:83428
TI Preparation of microcrystals of dihydrothienobenzothiepinylpropanamide derivative
IN Izawa, Naoto; Satoh, Norie; Yagi, Nobuhiro; Ohuchi, Kazue; Narita, Shoichi; Aoki, Noboru
PA Kyowa Hakko Kogyo Co., Ltd., Japan
SO PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005056561	A1	20050623	WO 2004-JP18773	20041209
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2004297132	A1	20050623	AU 2004-297132	20041209
	CA 2550136	A1	20050623	CA 2004-2550136	20041209
	EP 1693374	A1	20060823	EP 2004-807132	20041209
	EP 1693374	B1	20081015		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
	CN 1845927	A	20061011	CN 2004-80025657	20041209
	AT 411320	T	20081015	AT 2004-807132	20041209
	ES 2314484	T3	20090316	ES 2004-807132	20041209
	KR 2006121163	A	20061128	KR 2006-711372	20060609
	US 20070049634	A1	20070301	US 2006-582328	20060609
	NO 2006003134	A	20060908	NO 2006-3134	20060706
PRAI	JP 2003-413725	A	20031211		
	WO 2004-JP18773	W	20041209		

AB Claimed are microcrystals of (S)-(+)-3,3,3-trifluoro-2-hydroxy-2-methyl-N-(5,5,10-trioxo-4,10-dihydrothieno[3,2-c][1]benzothiepin-9-yl)propanamide (I) with average particle diameter of ≤ 80 μm. I is a known therapeutic agent for urinary incontinence. Crystals of I were pulverized by a jet mill at 0.4 MPa to give microcrystals of I with average particle diameter of 5 μm. Microcrystals of I showed high oral bioavailability and high stability. Capsules containing microcrystals of I were prepared
RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2004:996180 CAPLUS
DN 141:427991
TI Microcrystals of (E)-8-(3,4-dimethoxystyryl)-1,3-diethyl-7-methyl-3,7-dihydro-1H-purine-2,6-dione
IN Kuroda, Kazutoshi; Aoki, Noboru; Ochiai, Toshiro; Uchida, Akihiro; Ishikawa, Yasuhiro; Kigoshi, Makoto; Hayakawa, Eiji; Asanome, Kazuki
PA Kyowa Hakko Kogyo Co. Ltd., Japan
SO PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004099207	A1	20041118	WO 2004-JP6495	20040507
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2004236101	A1	20041118	AU 2004-236101	20040507
	CA 2525037	A1	20041118	CA 2004-2525037	20040507
	EP 1626049	A1	20060215	EP 2004-731752	20040507
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
	CN 1784405	A	20060607	CN 2004-80011873	20040507
	CN 100396245	C	20080618		
	US 20060205745	A1	20060914	US 2005-554511	20051026
	IN 2005CN03327	A	20070601	IN 2005-CN3327	20051208
PRAI	JP 2003-131417	A	20030509		
	WO 2004-JP6495	W	20040507		

AB Claimed are microcrystals of (E)-8-(3,4-dimethoxystyryl)-1,3-diethyl-7-methyl-3,7-dihydro-1H-purine-2,6-dione (I) with average particle diameter less than 50 μm; also claimed are microcrystals of I with average particle diameter of 0.5 to 20 μm; another claim specifies that microcrystals of I with average particle diameter less than 50 μm or with average particle diameter of 0.5 to 20 μm and 40% or higher degree of crystallinity are claimed; also claimed is a solid pharmaceutical preparation containing microcrystals of I. I is a known agent for the treatment of Parkinson's disease, asthma, etc. Crystals of I (average particle diameter : 181 μm, crystallinity : 71.6%) was pulverized by a jet mill at 0.25 MPa to give microcrystals of I (average particle diameter : 11 μm; crystallinity 67.3%). Microcrystals of this invention show excellent solubility, stability, bioavailability and dispersibility in drug preps. A formulation for tablets contains microcrystals of I 40 mg, lactose 110 mg, microcryst. cellulose 44 mg, polyvinylpyrrolidone 4 mg, and magnesium stearate 2 mg.
RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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=> s l9 and (pulveriz? or mill? or powder?)
         86272 PULVERIZ?
        320743 MILL?
        757581 POWDER?
        202341 POWD
           255 POWDS
        202468 POWD
                 (POWD OR POWDS)
        878907 POWDER?
                 (POWDER? OR POWD)
L11          8 L9 AND (PULVERIZ? OR MILL? OR POWDER?)

=> d 1-8 bib abs
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L11 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2005:540584 CAPLUS
DN 143:83428
TI Preparation of microcrystals of dihydrothienobenzothiepinylpropanamide derivative
IN Izawa, Naoto; Satoh, Norie; Yagi, Nobuhiro; Ohuchi, Kazue; Narita, Shoichi; Aoki, Noboru
PA Kyowa Hakko Kogyo Co., Ltd., Japan
SO PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005056561	A1	20050623	WO 2004-JP18773	20041209
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2004297132	A1	20050623	AU 2004-297132	20041209
	CA 2550136	A1	20050623	CA 2004-2550136	20041209
	EP 1693374	A1	20060823	EP 2004-807132	20041209
	EP 1693374	B1	20081015		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
	CN 1845927	A	20061011	CN 2004-80025657	20041209
	AT 411320	T	20081015	AT 2004-807132	20041209
	ES 2314484	T3	20090316	ES 2004-807132	20041209
	KR 2006121163	A	20061128	KR 2006-711372	20060609
	US 20070049634	A1	20070301	US 2006-582328	20060609
	NO 2006003134	A	20060908	NO 2006-3134	20060706
PRAI	JP 2003-413725	A	20031211		
	WO 2004-JP18773	W	20041209		

AB Claimed are microcrystals of (S)-(+)-3,3,3-trifluoro-2-hydroxy-2-methyl-N-(5,5,10-trioxo-4,10-dihydrothieno[3,2-c][1]benzothiepin-9-yl)propanamide (I) with average particle diameter of ≤ 80 μm. I is a known therapeutic agent for urinary incontinence. Crystals of I were pulverized by a jet mill at 0.4 MPa to give microcrystals of I with average particle diameter of 5 μm. Microcrystals of I showed high oral bioavailability and high stability. Capsules containing microcrystals of I were prepared
RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2004:996180 CAPLUS
DN 141:427991
TI Microcrystals of (E)-8-(3,4-dimethoxystyryl)-1,3-diethyl-7-methyl-3,7-dihydro-1H-purine-2,6-dione
IN Kuroda, Kazutoshi; Aoki, Noboru; Ochiai, Toshiro; Uchida, Akihiro; Ishikawa, Yasuhiro; Kigoshi, Makoto; Hayakawa, Eiji; Asanome, Kazuki
PA Kyowa Hakko Kogyo Co. Ltd., Japan
SO PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004099207	A1	20041118	WO 2004-JP6495	20040507
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2004236101	A1	20041118	AU 2004-236101	20040507
	CA 2525037	A1	20041118	CA 2004-2525037	20040507
	EP 1626049	A1	20060215	EP 2004-731752	20040507
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
	CN 1784405	A	20060607	CN 2004-80011873	20040507
	CN 100396245	C	20080618		
	US 20060205745	A1	20060914	US 2005-554511	20051026
	IN 2005CN03327	A	20070601	IN 2005-CN3327	20051208
PRAI	JP 2003-131417	A	20030509		
	WO 2004-JP6495	W	20040507		

AB Claimed are microcrystals of (E)-8-(3,4-dimethoxystyryl)-1,3-diethyl-7-methyl-3,7-dihydro-1H-purine-2,6-dione (I) with average particle diameter less than 50 μm; also claimed are microcrystals of I with average particle diameter of 0.5 to 20 μm; another claim specifies that microcrystals of I with average particle diameter less than 50 μm or with average particle diameter of 0.5 to 20 μm and 40% or higher degree of crystallinity are claimed; also claimed is a solid pharmaceutical preparation containing microcrystals of I. I is a known agent for the treatment of Parkinson's disease, asthma, etc. Crystals of I (average particle diameter : 181 μm, crystallinity : 71.6%) was pulverized by a jet mill at 0.25 MPa to give microcrystals of I (average particle diameter : 11 μm; crystallinity 67.3%). Microcrystals of this invention show excellent solubility, stability, bioavailability and dispersibility in drug prepns. A formulation for tablets contains microcrystals of I 40 mg, lactose 110 mg, microcryst. cellulose 44 mg, polyvinylpyrrolidone 4 mg, and magnesium stearate 2 mg.
RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2003:792578 CAPLUS
DN 140:207857
TI High-resolution and high-intensity powder diffractometer at BL15XU in SPring-8
AU Ikeda, Takuji; Nisawa, Atsushi; Okui, Masato; Yagi, Nobuhiro; Yoshikawa, Hideki; Fukushima, Sei
CS Advanced Materials Laboratory, National Institute for Material Science, Tsukuba, Ibaraki, 305-0044, Japan
SO Journal of Synchrotron Radiation (2003), 10(6), 424-429
CODEN: JSYRES; ISSN: 0909-0495
PB Blackwell Publishing Ltd.
DT Journal
LA English
AB A new ultra-high-resolution powder diffractometer for synchrotron radiation was constructed at beamline BL15XU, SPring-8. The 2-axis diffractometer is optimized for high-flux and high-coherent x-ray beams, which are provided by combining a planar undulator and a large offset rotated-inclined Si(111) double-crystal monochromator. The optics design of the diffractometer is based on transmission geometry, which employs a capillary specimen and reflection geometries using a flat-plate specimen. The intensity data are collected using a 2θ step-scan technique in both geometries. The diffractometer can be arranged in a variety of optical configurations, e.g. simple receiving slits, flat crystal analyzer of Ge(111) or Si(111), and in-vacuum-type long horizontal parallel slits. A min. full width at half-maximum against 2θ was 0.0057° at λ = 0.63582 Å for the (200) reflections from Si powder in the transmission geometry employing the Ge(111) crystal analyzer. A wide temperature range (82-900 K), which is controlled by a He/N2 gas stream system, is available. 288 structure parameters of a zeolite ZSM-5 sample were demonstrated to successfully refine with a Rwp value of 6.96% by a Rietveld anal. of the high-resolution powder diffraction data from a 1 mm-diameter capillary specimen.
RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2003:403678 CAPLUS
DN 139:41635
TI Stabilization of photo degradable drug powder by dry coating agglomeration
AU Ito, Ryusei; Maida, Akiyo; Shinohara, Kunio; Izawa, Naoto
CS Div. Mater. Sci. Eng., Grad. Sch. Eng., Hokkaido Univ., Sapporo, 060-8628, Japan
SO Funtai Kogaku Kaishi (2003), 40(5), 330-333
CODEN: FKKADA; ISSN: 0386-6157
PB Funtai Kogakkai
DT Journal
LA Japanese
AB Photo degradable drug powder was stabilized by dry coating drug agglomerates with UV protective powder with a high-shear mixer. As an example, pyridoxal phosphate (PLP) was used as the drug powder and titanium dioxide (TiO2) as a protective one. The drug forms a subcomponent under UV irradiation and the amount of the components was measured by high performance liquid chromatog. As a result, the UV protective performance improved with the mass ratio of TiO2 to PLP, the number of coating operations and the PLP agglomerate size.

L11 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2002:695818 CAPLUS
DN 137:222085
TI Utilization of spray-dried powder containing sugar alcohol for compression molded products
IN Narita, Shoichi; Ouchi, Kazue; Miyabe, Junichi; Murai, Kouji
PA Kyowa Hakko Kogyo Co., Ltd., Japan
SO PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002070013	A1	20020912	WO 2002-JP2050	20020305
	W: AE, AG, AL, AM, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CN, CO, CR, CU, CZ, DM, DZ, EC, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MA, MD, MG, MK, MN, MX, NO, NZ, OM, PH, PL, RO, RU, SG, SI, SK, TJ, TM, TN, TT, UA, US, UZ, VN, YU, ZA				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2440365	A1	20020912	CA 2002-2440365	20020305
	AU 2002238848	A1	20020919	AU 2002-238848	20020305
	AU 2002238848	B2	20071115		
	EP 1369131	A1	20031210	EP 2002-705082	20020305
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	CN 1494434	A	20040505	CN 2002-806022	20020305
	US 20040121006	A1	20040624	US 2003-469784	20031118
PRAI	JP 2001-62693	A	20010306		
	WO 2002-JP2050	W	20020305		

AB Disclosed is utilization of a spray-dried powder containing a sugar alc. in order to prevent the decomposition or denaturation of an active ingredient or changes in the function of functional particles due to compression in the production of compression molded prepns. Tablets were prepared from spray-dried D-mannitol 1252.5, crospovidone 75, silica 7.5, magnesium stearate 30, and sustained-release theophylline granule 135 g, and examined the theophylline dissoln. rate.
RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2002:695750 CAPLUS
DN 137:222068
TI Preparations quickly disintegrating in oral cavity
IN Narita, Shoichi; Ouchi, Kazue; Miyabe, Junichi; Murai, Kouji; Ogasa, Takehiro; Ohta, Motohiro
PA Kyowa Hakko Kogyo Co., Ltd., Japan
SO PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002069934	A1	20020912	WO 2002-JP2049	20020305
	W: AE, AG, AL, AM, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CN, CO, CR, CU, CZ, DM, DZ, EC, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MA, MD, MG, MK, MN, MX, NO, NZ, OM, PH, PL, RO, RU, SG, SI, SK, TJ, TM, TN, TT, UA, US, UZ, VN, YU, ZA				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2440361	A1	20020912	CA 2002-2440361	20020305
	AU 2002238847	A1	20020919	AU 2002-238847	20020305
	EP 1369109	A1	20031210	EP 2002-705081	20020305
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	CN 1494419	A	20040505	CN 2002-806023	20020305
	US 20040071772	A1	20040415	US 2003-469914	20031118
PRAI	JP 2001-62692	A	20010306		
	WO 2002-JP2049	W	20020305		

AB Disclosed are prepns. quickly disintegrating in the oral cavity which can be produced by the commonly employed compression molding method or, preferably, the direct tableting method, have a practically available hardness and are excellent in the disintegration properties in the oral cavity. These prepns. comprise a spray-dried powder containing a sugar alc. and having primary particles serving as unit particles and an active ingredient. D-Mannitol dissolved in water was spray dried to give powder (primary particle average diameter 50 μm). The obtained D-mannitol powder 1820 g, Crospovidone 100 g, Mg stearate 40 g, and benidipine hydrochloride 40 g were blended and compressed to give tablets (200 mg each).
RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2001:730533 CAPLUS
DN 135:262281
TI Water-soluble additives for the manufacture of easy-to-take granules
IN Murai, Kouji; Narita, Shoichi; Ogasa, Takehiro
PA Kyowa Hakko Kogyo Co., Ltd., Japan
SO PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001072285	A1	20011004	WO 2001-JP2406	20010326
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 2001042783	A	20011008	AU 2001-42783	20010326
	CA 2403594	A1	20020918	CA 2001-2403594	20010326
	EP 1269995	A1	20030102	EP 2001-915776	20010326
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	US 20030104066	A1	20030605	US 2002-239751	20021029
PRAI	JP 2000-86516	A	20000327		
	WO 2001-JP2406	W	20010326		

AB Disclosed are easy-to-take granules which comprise an active ingredient, at least one soluble additive having an average particle diameter smaller than 50 μm, and at least one disintegrator. The granules are easily dissolved or disintegrated in the buccal cavity. D-Mannitol 90 g was pulverized and mixed with crospovidone 5.5, hydroxypropyl cellulose 2, and oxatomide 2 g. Water was added to the mixture for kneading and granulation.
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1990:465286 CAPLUS
DN 113:65286
OREF 113:10915a,10918a
TI Gastric antiulcer pharmaceuticals containing tocopheryl retinoate
IN Kurihara, Masaaki; Ota, Keiichiro; Aoki, Noboru; Kawase, Shigeo
PA Lederle (Japan), Ltd., Japan; Nisshin Flour Milling Co., Ltd.
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02048525	A	19900219	JP 1988-198794	19880811
	JP 2776837	B2	19980716		
PRAI	JP 1988-198794		19880811		

AB Pharmaceuticals, useful for treatment of peptic ulcer, contain tocopheryl retinoate (I) as an active ingredient and 2-50 weight% (based on total weight) high-viscosity hydroxypropyl cellulose (II). II prolongs sticking or adhesion of I to gastric mucosa, especially to ulcer parts, thus showing good bioavailability. I 100, silica 100, and Klucel MF [II, 5250 cP (2% aqueous solution, at 25°)]100 mg were mixed to give an oral preparation, which at 25 mg/kg (as I) was administered to rats with AcOH-induced ulcer to show adsorbed I 1.4 μg in ulcer parts and 0.1 μg in normal parts 6 h after, vs. 0.9 and 0.1 μg, for a control preparation containing poly(vinylpyrrolidone) instead of II. Powders were formulated containing I 10, silica 10, and KLucel MF 10 g.

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=> d his full

     (FILE 'HOME' ENTERED AT 12:39:26 ON 23 MAR 2009)

     FILE 'CAPLUS' ENTERED AT 12:39:37 ON 23 MAR 2009
L1         14734 SEA ABB=ON  PLU=ON  (PHARMACEUTICAL OR PHARMACEUTICALS)(L)(PULV
                 ERIZE OR PULVERIZATION OR MILLING OR (JET MILL) OR POWDER)
L2            49 SEA ABB=ON  PLU=ON  L1 AND (JET MILL)
                 D QUE L2 STAT
                 D 1-49 BIB ABS
                 E IZAWA NAOTO/AU
L3             5 SEA ABB=ON  PLU=ON  "IZAWA NAOTO"/AU
                 E SATOH NORIE/AU
L4             1 SEA ABB=ON  PLU=ON  "SATOH NORIE"/AU
                 E YAGI NOBUHIRO/AU
L5            35 SEA ABB=ON  PLU=ON  "YAGI NOBUHIRO"/AU
                 E OUCHI KAZUE/AU
L6             3 SEA ABB=ON  PLU=ON  "OUCHI KAZUE"/AU
                 E NARITA SHOICHI/AU
L7             6 SEA ABB=ON  PLU=ON  "NARITA SHOICHI"/AU
                 E AOKI NOBORU/AU
L8            27 SEA ABB=ON  PLU=ON  "AOKI NOBORU"/AU
L9            70 SEA ABB=ON  PLU=ON  L3 OR L4 OR L5 OR L6 OR L7 OR L8
L10            2 SEA ABB=ON  PLU=ON  L9 AND (MICROCRYSTAL?)
                 D QUE L10 STAT
                 D 1-2 BIB ABS
L11            8 SEA ABB=ON  PLU=ON  L9 AND (PULVERIZ? OR MILL? OR POWDER?)
                 D 1-8 BIB ABS
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FULL ESTIMATED COST	241.80	242.02
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-48.38	-48.38

STN INTERNATIONAL LOGOFF AT 13:03:42 ON 23 MAR 2009